

### REMARKS

This Request for Reconsideration (hereafter "Request") is fully responsive to the final Office Action dated July 7, 2009, issued in connection with the above-identified application. Claims 1-11 are pending in the present application. With this Request, no claims have been amended, and no new matter has been introduced. Favorable reconsideration is respectfully requested.

In the Office Action, claims 1-11 have been rejected under 35 U.S.C. 102(b) as being anticipated by Keiichi (Japanese Application No. 2000-332387). The Applicants assert that the cited prior art fails to disclose or suggest all the features recited in at least independent claim 1. Claim 1 recites the following features:

"[a] method for manufacturing a printed wiring board which includes forming a thermosetting resin layer so as to fill spaces between circuit patterns formed on a surface of the printed wiring board, heating and curing the resin layer, and then polishing the cured resin layer covering the circuit patterns, thereby exposing the circuit patterns, wherein the step of heating and curing the resin layer comprises:

maintaining the resin layer at a non-curable temperature where the resin layer is pressed via a smoothing plate in a reduced pressure environment;

heating the resin layer in the pressed state to a curing temperature at which the resin layer is cured;

introducing outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature;

reducing the pressure applied to the smoothing plate while maintaining the curing temperature; and

cooling the resin layer,

wherein a metallic foil with a roughened surface facing the resin layer is superposed on the resin layer." (Emphasis added).

The present invention (as recited in independent claim 1) is distinguishable over the cited prior art in that the method of the present invention introduces outside air into the reduced

pressure environment while maintaining the pressed state and the curing temperature; and reduces the pressure applied to the smoothing plate while maintaining the curing temperature.

By adopting the process of "introducing outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature," the surface of the resin layer is cooled by the introduced outside air. As a result, the surface of the resin layer begins to set (i.e., hardening) preventing excessive outflow of resin, but the voids contained in the resin layer disappear by atmospheric pressure due to the resin layer not yet being completely hardened (i.e., due to maintaining the curing temperature). (See e.g., ¶[0011]).

In the Office Action, the Examiner relies on Keiichi for disclosing or suggesting all the features recited in independent claim 1. However, the Applicants assert that the cited prior art fails to disclose or suggest at least the features emphasized above in independent claim 1.

Specifically, on page 4 of the Office Action, the Examiner indicates that in order to remove the vacuum pressure or low atmospheric pressure, a pressure valve is open to let outside air gradually enter into a vacuum chamber. Therefore, the Examiner alleges that Keiichi, at a minimum, discloses a process of reducing the pressure applied to the smoothing plate while maintaining the curing temperature, as recited in independent claim 1.

However, although Keiichi discloses the process of introducing outside air into the vacuum chamber, the reference does not disclose the opening of a pressure valve (i.e., introducing outside air into the vacuum chamber) while maintaining the pressed state and the curing temperature, and reducing the pressure applied to the smoothing plate while maintaining the curing temperature.

In Keiichi, the pressure valve is open to let outside air enter into the vacuum chamber and to reduce the pressure after the resin is cured, which may prevent the particles contained in the outside air from adhering to the surface of the resin layer that has not yet set.

In the present invention (as recited in independent claim 1), however, the manufacturing method includes "introducing outside air into the reduced pressure environment *while maintaining the pressed state and the curing temperature.*" Thus, the surface of the resin layer is cooled by the introduced outside air and the pressure in the vacuum chamber returns back to

atmospheric pressure. As a result, the surface of the resin layer begins to set (i.e., hardening) preventing excessive outflow of resin (see e.g., ¶[0011]), but the voids contained in the resin layer disappear by atmospheric pressure due to the resin layer not yet being completely hardened (i.e., due to maintaining the curing temperature).

Keiichi is clearly different from the present invention (as recited in independent claim 1) in that the pressure valve is open, introducing outside air into the reduced pressure environment, *while not maintaining the curing temperature, or even decreasing the curing temperature*. Thus, in the manufacturing method of Keiichi, the voids in the resin layer will not disappear because the resin layer is hardened to quickly (e.g., before the atmospheric pressure is applied to the resin layer).

Based on the above discussion, independent claim 1 is not anticipated or rendered obvious by Keiichi. Likewise, claims 2-11 are not anticipated or rendered obvious by Keiichi at least by virtue of their dependencies (directly or indirectly) from independent claim 1.

In light of the above, the Applicant respectfully submits that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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